

## Credits, Articulations & Prerequisites



*This program offers excellent career opportunities for both male and female students.*

### Credits:

Cross credit with some academic courses (including 4<sup>th</sup> year related math, VPAA, math & science) may be available and will be reviewed on a case-by-case basis with each district's counseling department.

### Dual Enrollment:

- Henry Ford College - up to 17 credit hours
- Credential awarded upon graduation

### Prerequisites:

- Junior status and on track for graduation
- GPA of 2.0 or higher in core classes
- Program application required before acceptance.

## Program Description

This program provides students with the opportunity to obtain skills with Computer Numerical Controlled equipment as part of an Engineering curriculum. Students enrolled in the program will receive training on the latest equipment used in the modern manufacturing environment at Henry Ford College.

Students will learn on HAAS Computer Numerical Control lathes, mills, along with a wide variety of manual machine tools. Heat treating, harness testing, quality control techniques utilizing Coordinates Measuring Machines and Statistical Process Control will be introduced.

The courses required will be in-line with the Henry Ford MAT2 program offerings which greatly improve a student's employability opportunities. The classes can be used as a building block toward an Associate in Applied Science degree.

Interested and qualified students may have an opportunity to spend a one-semester paid internship with local area employers for on-the-job training aligned to the curriculum.

Attendance history must meet the standard of the sending school district and additional prerequisites may be required by Henry Ford College.

## Special Features

In cooperation with Henry Ford College, the successful Mechanical Engineering & CNC Technology student will finish high school having completed up to **17 hours of undergraduate** credit. Should a student choose, they can complete their Associate's degree at HFC while they are working in their career field.

Leadership and work-based learning opportunities available.

Students will meet at Michigan Technical Education Center of Henry Ford College located at: 3601 Schaefer Road, Dearborn, MI

### STATEMENT OF COMPLIANCE

The Downriver Career Technical Consortium complies with all federal laws and regulations of the U.S. Department of Education. It is the policy of the Downriver Career Technical Consortium that no person on the basis of race, color, religion, national origin or ancestry, age, gender, marital status, disability or limited English proficiency shall be discriminated against or excluded from participation in any program or activity to which it is responsible or for which it receives financial assistance from the U.S. Department of Education. Furthermore, the consortium will encourage participation by all of the above.



## **Henry Ford College School of Business, Entrepreneurship & Professional Development**

The School of BEPD provides educational experiences to plan, build, fabricate, and maintain the designed world. We offer instruction through hands-on interactive learning utilizing the most relevant technologies in a working environment. We aspire to develop the mastery of skills that will supply industry with recognized professionals for the future driven technological society.

### **Contact Us**

#### ***Guy Pizzino***

Machine Tool Technology Faculty

Phone: 313-845-6331

Email: [gpizzino@hfcc.edu](mailto:gpizzino@hfcc.edu)

#### ***Main BEPD Office***

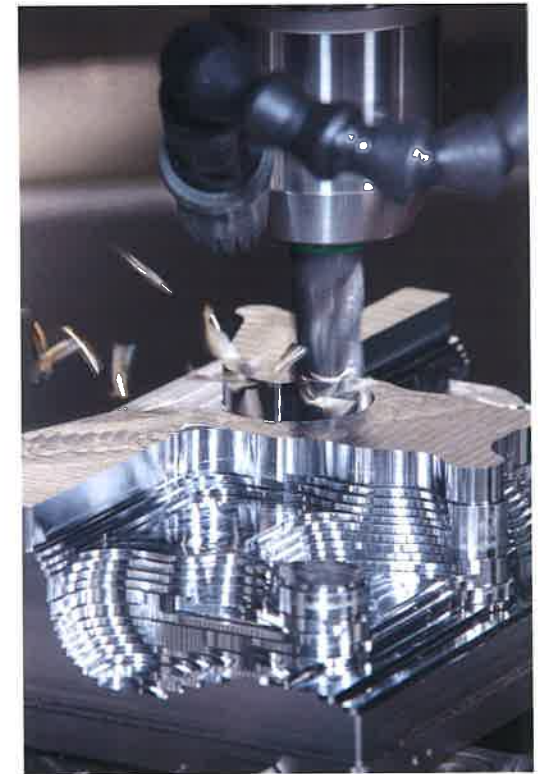
Located in [E-211](#)

313-845-9645



**HENRY FORD COLLEGE**

5105 Evergreen Road  
Dearborn, MI 48128

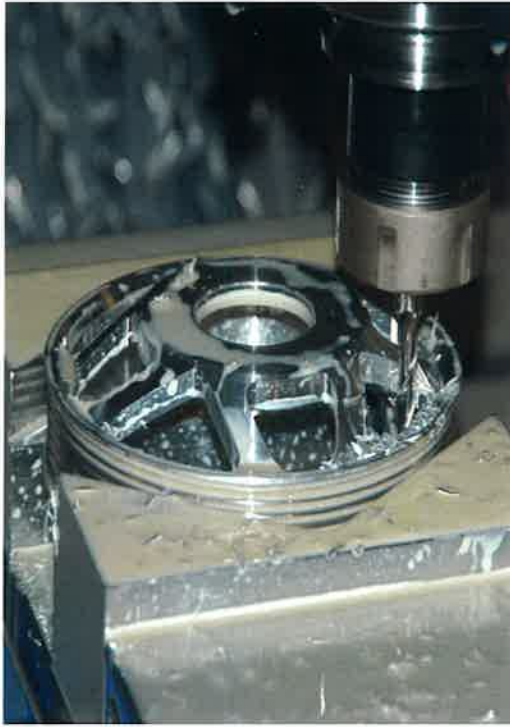


### **Career Opportunities in CNC:**

- Automation and Control Technician
- CNC Set-up Technician
- Engineering Technician
- Quality Controller
- Programmer
- Laboratory Technician
- Tool Analyst
- Pre-production Planner
- Plastic R & D Technician
- Machinist/Toolmaker
- Sales & Service Engineer
- Process Engineer

**HENRY  
FORD  
COLLEGE**  
FUTUREDRIVEN

**Machine Tool  
Technology / CNC**



## Machine Tool Technology / CNC Certificates

### Machine Tool Technology / CNC

Basic Certificate

MTT-100 Machine Tool Processes 1  
 MTT-130 Q-C Gaging and Inspection  
 MTT-140 Introduction to CNC  
 MTT-145 CNC Operations  
 MTT-146 Intro to CNC Machine Tool Probing  
 MTT-147 Basic Macro Programming for CNC  
 MTT-148 Advanced CNC Probing

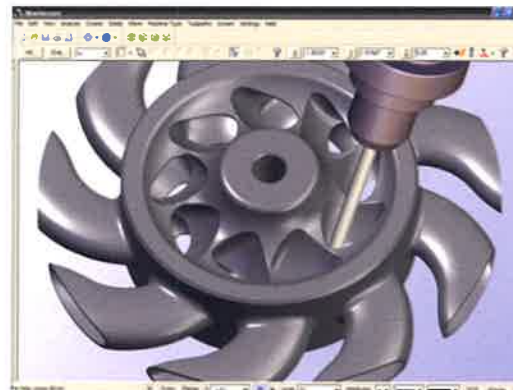
Total Credit Hours 17

### Machine Tool Technology / CNC

Advanced Certificate

MTT-100 Machine Tool Processes 1  
 MTT-130 Q-C Gaging and Inspection  
 MTT-140 Introduction to CNC  
 MTT-145 CNC Operations  
 MTT-146 Intro to CNC Machine Tool Probing  
 MTT-147 Basic Macro Programming for CNC  
 MTT-148 Advanced CNC Probing  
 MTT-150 SPC in Manufacturing  
 MTT-275 Advanced CNC Operations

Total Credit Hours 24



## CNC Machining

Computerized Numerical Control (CNC) Machining is a resurgent and dynamic industry that uses computers and machinery together with highly specialized software to produce manufactured goods. The CNC program encourages students to gain practical experience in the field at local manufacturing plants. The CNC lab utilizes state of the art CNC machining centers.

In southeastern Michigan and across the nation, there is a high demand for skilled CNC machinists who currently enjoy an extremely favorable employment outlook.



Henry Ford College is a Certified Haas Technical Center

## Associate Degree

### Machine Tool Technology / CNC

Associate Degree

Degree Requirements

MTT-100 Machine Tool Processes 1  
 MTT-105 Print Reading for Manufacturing  
 MTT-110 Machine Tool Processes 2  
 MTT-130 Q-C Gaging and Inspection  
 MTT-140 Introduction to CNC  
 MTT-145 CNC Operations  
 MTT-146 Intro to CNC Machine Tool Probing  
 MTT-147 Basic Macro Programming for CNC  
 MTT-148 Advanced CNC Probing  
 MTT-150 SPC in Manufacturing  
 MTT-160 Comp. Assisted N/C Programming  
 MTT-170 Advanced N/C Programming  
 MTT-275 Advanced CNC Operations

Required Support Courses

DRAF-110 Intro to Industrial Drafting  
 DRAF-120 Introduction to CAD  
 CIS-125 Principals of Programming Logic

\*General Education Courses

MATH-100 Basic Technical Math  
 POLS-131 Intro to American Government  
 CIS-100 Intro to Information Technology  
 ENG-131 Introduction to College Writing  
 ENG-135 Basic Technical Writing

Total Credit Hours 64

\*Other General Education classes may qualify, see website.